



Entry 1 of 1

File: USPT

Jun 14, 199

US-PAT-NO: 5320618

DOCUMENT-IDENTIFIER: US 5320618 A

TITLE: Device for treatment of undesired skin disfigurements

DATE-ISSUED: June 14, 1994

INVENTOR-INFORMATION:

NAME STATE CITY ZIP CODE COUNTRY Gustafsson; Morgan S-413 01 Goteborg N/A N/A SEX

7/ 934516 APPL-NO:

DATE FILED: October 7, 1992 FOREIGN-APPL-PRIORITY-DATA:

FOREIGN-PRIORITY:

FOREIGN-PRIORITY-APPL-NO: SE 9001298-0 FOREIGN-PRIORITY-APPL-DATE: April 9, 1990

PCT-DATA:

PCT-DATE-FILED: April 9, 1991 PCT-APPL-NO: PCT/SE91/00260 PCT-371-DATE: October 7, 1992 PCT-102(E)-DATE: October 7, 1992

PCT-PUB-NO: W091/15264

PCT-PUB-DATE: October 17, 1991

INT-CL: [5] A61B 17/36

US-CL-ISSUED: 606/9; 606/11, 606/3, 606/16 US-CL-CURRENT: $\underline{606/9}$; $\underline{606}/\underline{11}$, $\underline{606}/\underline{16}$, $\underline{606/3}$

FIELD-OF-SEARCH: 606/4, 606/14, 606/15, 606/16, 606/17, 606/18, 606/27, 606/28, 606/32, 606/34, 606/41, 606/10, 606/11, 606/2, 606/3, 606/9, 128/395, 128/396, 128/397, 128/398

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
3327712	June 1967	Kaufmann et al.	N/A
3693623	September 1972	Harte et al.	606/9
4233493	November 1980	Nath	606/16
4747660	May 1988	Nishioka et al.	606/14
4832024	May 1989	Boussignac et al.	606/15
4860172	August 1989	Schlager et al.	606/17

FOREIGN PATENT DOCUMENTS

COUNTRY FOREIGN-PAT-NO PUBN-DATE 2044908 GB October 1980

ART-UNIT: 339

PRIMARY-EXAMINER: Pellegrino; Stephen C.

ASSISTANT-EXAMINER: Harris; Sonya ATTY-AGENT-FIRM: Renz, Jr.; Eugene E.

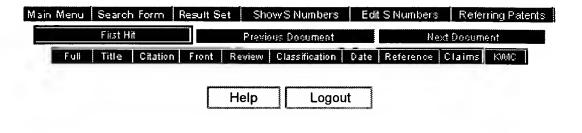
ABSTRACT:

The present invention relates to a device for treating of superficial afflictions of the type telangiectasis by means of a directed light beam. The device can be produced at a very low cost compared with known devices due to the fact that a source of light (2) that produces non-coherent light is used, that means due to a non-use of laser.



that means due to a non-use of laser.

8 Claims, 6 Drawing figures



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1	IS&R	L1	1	("540536 .		USPAT	2000/03/24 12:37
2	BRS	L2		echhouse ::	S.in.	USPAT	2000/03/24 12:37
3	BRS	L3	0	eckho us e · · ·	i.in.	USPAT	2000/03/24 12:38
4	BRS	L5	14	eckhouse ::	in.	USPAT	2000/03/24 12:38
5	BRS	L7	11	(hair wi: _ (incoher:	al) and light)	USPAT	2000/03/24 13:05

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 KWIC

Document Number 11

Entry 11 of 13

File: USPT

May 6, 1997

US-PAT-NO: 5626631

DOCUMENT-IDENTIFIER: US 5626631 A

TITLE: Method and apparatus for therapeutic electromagnetic treatment

DATE-ISSUED: May 6, 1997 INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Eckhouse; Shimon Haifa N/A N/A ILX

ASSIGNEE INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

ESC Medical Systems Yokneam N/A N/A ILX 03

Ltd.

APPL-NO: 8/ 383509

DATE FILED: February 3, 1995

PARENT-CASE:

RELATED APPLICATION This application is a continuation-in-part of prior U.S. application Ser. No. 07/964,210, filed Oct. 20, 1992, now U.S. Pat. No. 5,405,368, entitled "Method And Apparatus For Therapeutic Electromagnetic

Treatment."

INT-CL: [6] $\underline{A61} \times \underline{N} \times \underline{5/06}$ US-CL-ISSUED: 607/88; 606/9

US-CL-ISSUED: 607/88; 606/9 US-CL-CURRENT: 607/88; 606/9

FIELD-OF-SEARCH: 507/88, 507/89, 507/90, 507/91, 507/92, 507/93,

507/94, 606/2, 606/3, 606/9, 606/10, 606/11, 606/12,

606/13, 606/17, 606/18, 606/19

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4022534	May 1977	Kishner	N/A
4298005	November 1981	Mutzhas	N/A
4608978	September 1986	Rohr	606/11
4686986	August 1987	Fenyo et al.	607/90
4757431	July 1988	Cross et al.	N/A
4784135	November 1988	Blum et al.	N/A
4829262	May 1989	Furumoto	N/A
4930504	June 1990	Diamantopoulos et	N/A
4950880	August 1990	al.	N/A
5161526	November 1992	Hayner	N/A
5207671	May 1993	Hellwing et al.	N/A
5217455	June 1993	Franken et al.	N/A
5259380	November 1993	Tan	N/A
5320618	June 1994	Mendes et al.	N/A
5344418	September 1994	Gustafsson	N/A
Ghaffari			

FOREIGN PATENT DOCUMENTS

COUNTRY FOREIGN-PAT-NO PUBN-DATE
DE 3906860A1 September 1989

ART-UNIT: 331

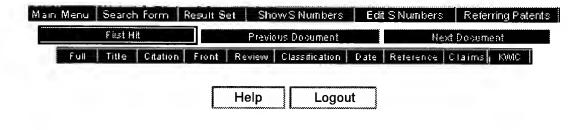
PRIMARY-EXAMINER: Sykes; Angela D. ASSISTANT-EXAMINER: Winakur; Eric F. ATTY-AGENT-FIRM: Foley & Lardner

ATTY-AGENT-FIRM: Foley & Lardner

ABSTRACT:

A therapeutic treatment device for coagulating blood in blood vessels underlying an epidermal layer is disclosed having an incoherent light source operable to provide a pulsed light output for treatment and a driver circuit, including a switch capable of being electrically turned on and being electrically turned off to thereby provide a first interval of light, connected to the light source to control the pulse width and delay between pulses.

10 Claims, 19 Drawing figures



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Document Number 7

Entry 7 of 13

File: USPT

May 26, 199

US-PAT-NO: 5755751

DOCUMENT-IDENTIFIER: US 5755751 A

TITLE: Method and apparatus for therapeutic electromagnetic treatment

DATE-ISSUED: May 26, 1998

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Eckhouse; Shimon Hafia N/A N/A ILX

ASSIGNEE INFORMATION:

NAME CITY STATE COUNTRY TYPE CODE ZIP CODE

ESC Medical Systems Yokneam N/A N/A ILX 03

Ltd.

8/ 473532 APPL-NO: DATE FILED: June 7, 1995

PARENT-CASE:

This is a continuation of U.S. Ser. No. 08/383,509 filed on Feb. 3, 1995 entitled METHOD AND APPARATUS FOR THERAPEUTIC ELECTROMAGNETIC TREATMENT, now U.S. Pat. No. 5,626,631, which is a continuation-in-part of U.S. Ser. No. 07/964,210, filed Oct. 20, 1992, now U.S. Pat. No. 5,405,368.

INT-CL: [6] A61 N 5/06 US-CL-ISSUED: 607/88; 606/9 US-CL-CURRENT: 607/88; 606/9

FIELD-OF-SEARCH: 607/88, 607/89, 607/90, 607/91, 607/92, 607/93,

607/54, 606/2, 606/3, 606/9, 606/10, 606/11, 606/12,

606/13, 606/17, 606/18, 606/19

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
3693623	September 1972	Harte et al.	606/3
4022534	May 1977	Kishner	N/A
4298005	November 1981	Mutzhas	N/A
4608978	September 1986	Rohr	606/11
4686986	August 1987	Fenyo et al.	607/90
4757431	July 1988	Cross et al.	N/A
4784135	November 1988	Blum et al.	N/A
4829262	May 1989	Furumoto	N/A
4930504	June 1990	Diamantopoulos et	N/A
4950880	August 1990	al.	N/A
5161526	November 1992	Hayner	N/A
5207671	May 1993	Hellwing et al.	N/A
5217455	June 1993	Franken et al.	N/A
5259380	November 1993	Tan	N/A
5320618	June 1994	Mendes et al.	N/A
5344418	September 1994	Gustafsson	N/A
Ghaffari			

FOREIGN PATENT DOCUMENTS

COUNTRY FOREIGN-PAT-NO PUBN-DATE 3906860A1 March 1989 DF.

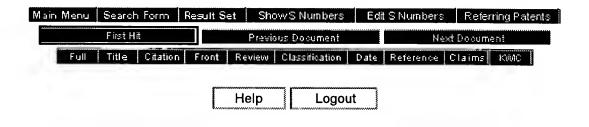
ART-UNIT: 331

PRIMARY-EXAMINER: Bahr; Jennifer ASSISTANT-EXAMINER: Winakur; Eric F. ATTY-AGENT-FIRM: Foley & Lardner

ABSTRACT:

A therapeutic treatment method includes the steps of providing a pulsed incoherent light output for treatment, directing the pulsed light output to a treatment area, transmitting the pulsed light output through the epidermis at the treatment area, heating the epidermis to a temperature below the temperature at which the epidermis is damaged, and coagulating blood in blood vessels disposed below the epidermis.

40 Claims, 19 Drawing figures





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Document Number 4

Entry 4 of 13

File: USPT

Nov 17, 199

US-PAT-NO: (5836999

DOCUMENT-IDENTIFIER: US 5836999 A

TITLE: Method and apparatus for treating psoriasis using pulsed

electromagnetic radiation

DATE-ISSUED: November 17, 1998

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Eckhouse; Shimon Haifa N/A N/A ILX Kreindel; Michael Haifa N/A N/A ILX

ASSIGNEE INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

ESC Medical Systems Yokneam N/A N/A ILX 03

Ltd.

8/ 535705 APPL-NO:

DATE FILED: September 28, 1995

INT-CL: [6] A61 N 5/06

US-CL-ISSUED: 607/88; 607/90, 607/94, 606/3

US-CL-CURRENT: $\underline{607/88}$; $\underline{606/3}$, $\underline{607/90}$, $\underline{607/94}$ FIELD-OF-SEARCH: $\underline{607/88-89}$, $\underline{607/90}$, $\underline{607/91}$, $\underline{607/94}$, $\underline{606/11-17}$, $\underline{606/2-6}$

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4022534	May 1977	Kishner	N/A
4298005	November 1981	Mutzhas	N/A
4757431	July 1988	Cross et al.	N/A
4784135	November 1988	Blum et al.	N/A
4829262	May 1989	Furumoto	N/A
4840798	June 1989	Skaliots	424/488
4926861	May 1990	Fengo et al.	607/88
4930504	June 1990	Diamantopoulos et	N/A
4950880	August 1990	al.	N/A
5161526	November 1992	Hayner	N/A
5207671	May 1993	Hellwing et al.	N/A
5217455	June 1993	Franken et al.	N/A
5259380	November 1993	Tan	N/A
5320618	June 1994	Mendes et al.	N/A
5344418	September 1994	Gustafsson	N/A
5344434	September 1994	Ghaffari	N/A
5405368	April 1995	Talmore	607/88
5454807	October 1995	Eckhouse	606/17
Lennoxet al.			

FOREIGN PATENT DOCUMENTS

COUNTRY FOREIGN-PAT-NO PUBN-DATE

DE 3906860-A1 September 1989

ART-UNIT: 331

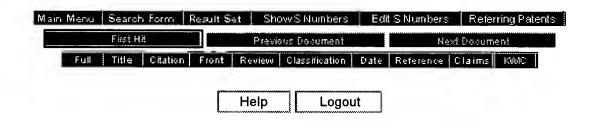
PRIMARY-EXAMINER: Lacyk; John P. ATTY-AGENT-FIRM: Foley & Lardner

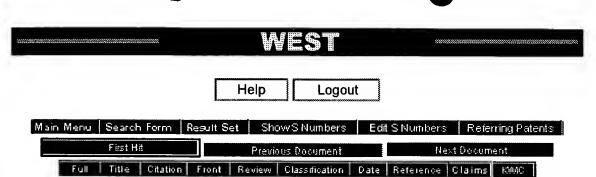


ABSTRACT:

A method and apparatus for treating psoriasis includes a source of incoherent electromagnetic energy. The energy is directed to a region of tissue to be treated. The pulse duration and the number of pulses may be selected to control treatment parameters such as the heating of healthy tissue and the penetration depth of the energy to optimize the treatment. Also, the radiation may be filtered to control the radiation spectrum and penetration depth. The filtering may include attenuating an UV portion of the radiation spectrum and portions of the spectrum below a desired treatment bandwidth. A light guide for large or small spot sizes may be used to direct the light to the skin. A cooling gel is applied to the skin to be treated in another embodiment. The gel may be cooled either before or after it is applied to the skin.

12 Claims, 2 Drawing figures





Entry 1 of 13

File: USPT

Mar 23, 199

VS-PAT-NO: 5885273

DOCUMENT-IDENTIFIER: US 5885273 A

TITLE: Method for depilation using pulsed electromagnetic radiation

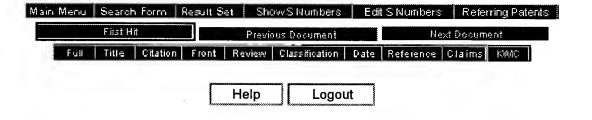
DATE-ISSUED: March 23, 1999

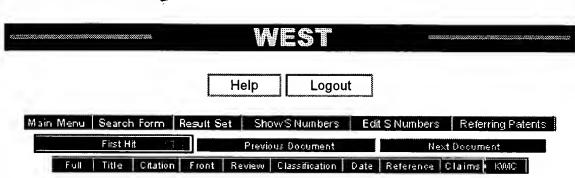
INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Eckhouse; Shimon Haifa N/A N/A ILX

Bachrach; Hillel Needham MA N/A N/A

US-CL-CURRENT: $\underline{606/9}$; $\underline{606/10}$, $\underline{606/13}$, $\underline{606/2}$





Entry 1 of 1

File: USPT .

Sep 26, 197

US-PAT-NO: 3693623

DOCUMENT-IDENTIFIER: US 3693623 A

TITLE: PHOTOCOAGULATION MEANS AND METHOD FOR DEPILATION

DATE-ISSUED: September 26, 1972

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Harte; Richard A. Redwood City CA N/A N/A Amstutz; Edwin A. Santa Clara CA N/A N/A

ASSIGNEE INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE Gregory System, Inc. Houston TX N/A N/A 02

APPL-NO: 5/ 092598

DATE FILED: December 25, 1970

PARENT-CASE:

This application is a continuation-in-part of the copending abandoned application Ser. No. 23,921 filed Mar. 30, 1970.

INT-CL: [] A61r 3/00

US-CL-ISSUED: 128/303.1; 128/355, 128/398 US-CL-CURRENT: 606/9; 606/11, 606/15, 606/3

FIELD-OF-SEARCH: 128/303.1, 128/398, 128/303.18, 128/355

REF-CITED:

U.S. PATENT DOCUMENTS

ISSUE-DATE PAT-NO PATENTEE-NAME US-CL 3538919 November 1970 128/398 Meyer 3471215 October 1969 Snitzer A/N Kaufman et al. 3327712 June 1967 128/398

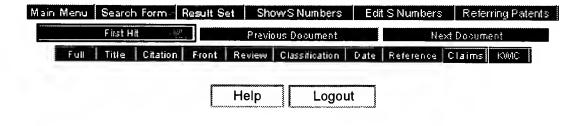
ART-UNIT: 335

PRIMARY-EXAMINER: Trapp; Lawrence W. ATTY-AGENT-FIRM: Brown; Laurence R.

ABSTRACT:

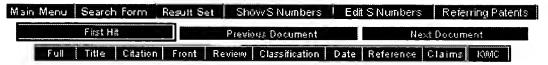
Depilation is effected by use of light energy of a selected frequency band concentrated into a flexible fiber small enough to enter the region of the follicle. This effects photocoagulation tissue in a limited region determined by the placement of the fiber.

20 Claims, 3 Drawing figures



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Document Number 1

Entry 1 of 1

File: USPT

Sep 2, 1986

US-PAT-NO: 4608978

DOCUMENT-IDENTIFIER: US 4608978 A

TITLE: Method and apparatus for photoepiltion

DATE-ISSUED: September 2, 1986

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Rohr; Carol B. Lincolnwood IL N/A N/A

ASSIGNEE INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Carol Block Limited McHenry IL N/A N/A 02

APPL-NO: 6/ 535857

DATE FILED: September 26, 1983

INT-CL: [4] A61N 5/00

US-CL-ISSUED: 128/303.1; 128/355, 128/398

US-CL-CURRENT: 606/9; 606/11, 607/93

FIELD-OF-SEARCH: 128/303.1, 128/395-398, 128/305, 128/303.18, 128/907

REF-CITED:

U.S. PATENT DOCUMENTS

ISSUE-DATE	PATENTEE-NAME	US-CL
September 1972	Harte et al.	N/A
January 1982	Aron et al.	N/A
March 1982	Roge	128/303.18
June 1983	Weissman et al.	N/A
October 1983	Augusta	N/A
	September 1972 January 1982 March 1982 June 1983	September 1972 Harte et al. January 1982 Aron et al. March 1982 Roge June 1983 Weissman et al.

FOREIGN PATENT DOCUMENTS

 COUNTRY
 FOREIGN-PAT-NO
 PUBN-DATE

 DE
 2820903
 November 1978

 FR
 2371935
 June 1978

ART-UNIT: 335

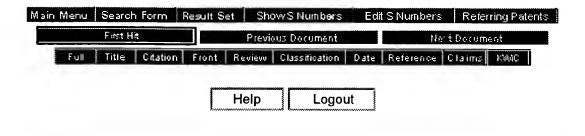
PRIMARY-EXAMINER: Cohen; Lee S.

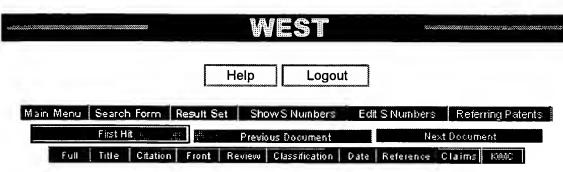
ATTY-AGENT-FIRM: Silverman, Cass & Singer

ABSTRACT:

The certain quantity of light energy sufficient to effect lifelessness in each of a particular type of hairs, such as is found in a face, arm or back, is provided to the tip of a hand held probe each time a switch is closed, independent of the duration of the switch closure. This relieves the electrologist from having to manually count times, or the number of pulses of light energy applied to a hair body, to effect lifelessness therein. Such counting has been a major part of the photoepilation procedure, and a burden on the electrologist's faculties. In one embodiment, actuating a foot switch provides a series of timed and spaced pulses of light energy for a period, which is selectable by rotating a wiper of a variable resistor-capacitor circuit. The sum of the energies of the pulses over the selected period equals the certain quantity of light energy. In another embodiment, depressing one of four foot switches provides one of four fixed periods of light pulses. In both embodiments, the certain quantity of light energy is first determined for the hair type and then that certain quantity is used for all the hairs of that type to be removed.

10 Claims, 4 Drawing figures





Entry 3 of 34

File: USPT

Mar 23, 199

US-PAT-NO: 5885274

DOCUMENT-IDENTIFIER: US 5885274 A

TITLE: Filament lamp for dermatological treatment

DATE-ISSUED: March 23, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Fullmer; David J. Auburn CA N/A N/A Hennings; David R. Auburn CA N/A N/A Sand; Bruce J. Beverly Hills N/A N/A

ASSIGNEE INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE New Star Lasers, Inc. Auburn CA N/A N/A 02

ADDI NO: 0/ 001530

APPL-NO: 8/ 881539

DATE FILED: June 24, 1997 INT-CL: [6] A61 B 17/36

US-CL-ISSUED: 606/9; 606/3, 606/13 US-CL-CURRENT: 606/9; 606/13, 606/3

FIELD-OF-SEARCH: 606/9, 606/3, 606/13, 607/100, 607/88

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO ISSUE-DATE PATENTEE-NAME US-CL 3867948 February 1975 Kallenborn 607/88 5511563 April 1996 Diamond 606/3 Eckhouse et al. 5683380 November 1997 606/3

ART-UNIT: 371

PRIMARY-EXAMINER: Buiz; Michael
ASSISTANT-EXAMINER: Woo; Julian W.
ATTY-AGENT-FIRM: Shahani, Esq.; Ray K.

ABSTRACT:

Thermal modification of dermatological tissue using non-laser infrared light energy. A high energy incandescent-type lamp, such as a quartz tungsten halogen lamp, operated in a pulsed mode with a high voltage input, creates a particular energy output. Applications of such apparatus and methods include treatment of the dermis and/or sub-epidermal tissues for the purpose of skin recontouring, thermal destruction of hair follicles for the purpose of hair removal, and others.

21 Claims, 4 Drawing figures

